What is claimed is:

1. A transporting and storing system used in conjunction with an immunodiagnostic instrument, comprising:

a. a multiplicity of reagent packs, each having an elongated body with at least one well, the elongated body having sufficient thickness for said well and a slim profile with a wide middle portion, a narrow front portion with a pointed front end, and a narrow rear portion with a rounded rear end having two generally opposite outer sides;

b. a gantry mounted on a rack structure and movable horizontally for carrying a gripper mechanism which is vertically movable on the gantry and horizontally moveable with the gantry, the gripper mechanism having a pair of generally oppositely disposed and synchronically movable gripping jaws each having an inner side for engagement with said outer sides of said reagent pack;

c. a power assembly for actuating the respective movement of said gantry, said gripper mechanism and said gripping jaws;

d. a storage nest having a multiplicity of compartments aligned in vertical columns and horizontal rows, each adapted for storing one of the respective reagent packs;

e. a pipetting nest having a multiplicity of compartment aligned in at least one horizontal row, each adapted for retaining one of respective reagent packs for simultaneous pipetting;

f. at least one vertical transport route between two adjacent and spaced apart columns of said compartments for allowing the vertical movement of said gripper mechanism, and at least one horizontal transport route between two adjacent and spaced apart rows of said compartments for allowing the horizontal movement of said gripper mechanism carried by said gantry, for transporting said reagent packs between said storage nest and said pipetting nest;

g. means for positioning and positively retaining said reagent pack by said gripper mechanism, for causing said reagent pack to be slightly lifted up when engaged by said gripping jaws and moved in or out of said storage compartment; and

h. means for maintaining precise pipetting position of said reagent pack, including spring-loaded v-shaped members located in said pipetting compartment, for limiting the movement of said reagent pack during pipetting.

2. The system as defined in claim 1, wherein said power assembly comprises a pneumatic power source.

3. The system as defined in claim 1, wherein said at least one vertical transport route is located between two adjacent and spaced apart columns of said compartments of said storage nest.

4. The system as defined in claim 1, wherein said at least one horizontal transport route is located between said at least one row of said compartments of said pipetting nest and an adjacent and spaced apart row of said compartments of said storage nest.

5. The system as defined in Claim 1, wherein said means for positioning and positively retaining said reagent pack by said gripper mechanism comprises at least two holes with tapered conical opening on one of said two outer sides of said reagent pack and at least one hole with tapered conical opening on the other one of said two outer sides of said reagent pack, and further comprises at least two complementary conical pins on said inner side of a corresponding one of said pair of gripping jaws and at least one complementary conical pin on said inner side of the other one of said pair of gripping jaws.

6. The system as defined in claim 1, wherein said means for positioning and positively retaining said reagent pack by said gripper mechanism comprises at least two conical pins on one of said two outer sides of said reagent pack and at least one conical pin on the other one of said two outer sides of said reagent pack, and further comprises at least two complementary holes with tapered conical opening on said inner side of a corresponding one of said pair of gripping jaws and at least one complementary hole with tapered conical opening on said inner side of the other one of said pair of gripping jaws.

7. A reagent pack used in conjunction with a transporting and storing system for an immunodiagnostic instrument, the transporting and storing system having a gripper mechanism with outwardly protruding pins for positioning and positively retaining the reagent pack, the reagent pack comprising:

a. an elongated body having sufficient thickness for having at least one well;

b. said elongated body having a slim profile with a wide middle portion, a narrow front portion with a pointed front end, and a narrow ear portion with a rounded rear end having two generally opposite outer sides;

c. means for facilitating position and positive retention of said reagent pack by said gripper mechanism, including complementary holes on said outer sides of said elongated body for engagement with said inwardly protruding pins of said gripping mechanism of said transporting and storing system.

8. The reagent pack as defined in claim 7, wherein said complementary holes of said reagent pack each has a tapered conical opening for causing said reagent pack to be slightly lifted up when engaged by said gripping mechanism.

9. A transporting and storing system used in conjunction with an immunodiagnostic instrument, comprising:

a. a multiplicity of reagent packs;

b. a gantry movably mounted on a rack structure for carrying a gripper mechanism, the gripper mechanism having gripping jaws for engagement with said reagent pack;

c. a power assembly for actuating the respective movement of said gantry, said gripper mechanism and said gripping jaws;

d. a storage nest having a multiplicity of compartments each adapted for storing a respective one of said reagent packs;

e. a pipetting nest having a multiplicity of compartment each adapted for retaining a respective one of said reagent packs for simultaneous pipetting;

f. at least one transport route for allowing movement of said gripper mechanism carried by said gantry for transporting said reagent packs between said storage nest and said pipetting nest;

g. means for positioning and positively retaining said reagent pack by said gripper mechanism, including complementary features on said reagent pack and said gripping jaws, for causing said reagent pack to be slightly lifted up when engaged by said gripping jaws and moved in or out of said storage compartment; and

h. means for maintaining precise pipetting position of said reagent pack, including spring-loaded members located in said pipetting compartment, for limiting the movement of said reagent pack during pipetting.

10. The system as defined in claim 9, wherein said power assembly comprises a pneumatic power source.

11. The system as defined in claim 9, wherein said multiplicity of compartments of said storage nest are aligned in vertical columns and horizontal rows, and said multiplicity of compartments of said pipetting nest are aligned in at least one horizontal row.

12. The system as defined in claim 11, wherein said at least one transport route comprises a vertical transport route located between two adjacent and spaced apart columns of said compartments of said storage nest.

13. The system as defined in claim 12, wherein said at least one transport route further comprises a horizontal transport route located between said at least one row of said compartments of said pipetting nest and an adjacent and spaced apart row of said compartments of said storage nest.

14. The system as defined in claim 9, wherein said means for positioning and positively retaining said reagent pack by said gripper mechanism comprises holes with tapered conical opening on said reagent pack and complementary conical pins on said gripping jaws, and complementary conical pins on said gripping jaws.

15. The system as defined in claim 9, wherein said spring-loaded members each has a v-shaped deflectible configuration.

16. A reagent pack used in conjunction with a transporting and storing system for an immunodiagnostic instrument, the transporting and storing system having a gripper mechanism with outwardly facing features for positioning and positively retaining the reagent pack, the reagent pack comprising inwardly facing complementary features for facilitating position and positive retention of said reagent pack by said gripper mechanism.

17. The reagent pack as defined in claim 16, wherein said complementary features comprise conical pins and complementary tapered conical holes.

18. A method for transporting and storing multiple reagent packs used in conjunction with an immunodiagnostic instrument, comprising the steps of:

a. providing a gripper mechanism having a pair of generally oppositely disposed and synchronically movable gripping jaws each having an inner side for engagement with one of said reagent packs,

b. mounting a gantry on a rack structure to move horizontally for carrying said gripper mechanism such that it is vertically movable on the gantry and horizontally moveable with the gantry;

c. supplying power to actuate the respective movement of said gantry, said gripper mechanism and said gripping jaws;

d. aligning a multiplicity of storage compartments in vertical columns and horizontal rows for storing said reagent packs respectively, and aligning a multiplicity of pipetting compartment in at least one horizontal row for simultaneous pipetting;

e. leaving at least one vertical transport route between two adjacent and spaced apart columns of said compartments for allowing the vertical movement of said gripper mechanism, and at least one horizontal transport route between two adjacent and spaced apart rows of said compartments for allowing the horizontal movement of said gripper mechanism carried by said gantry, for transporting said reagent packs between said storage compartments and said pipetting compartments;

f. moving said gripper mechanism along said at least one vertical route and said at least one horizontal route to transport said reagent packs between said storage compartments and said pipetting compartments;

g. while leaving one of said reagent packs in a respective one of said pipetting compartment for pipetting, moving said gripper mechanism to transport another one of said reagent packs to another one of said pipetting compartments for simultaneous pipetting;

h. positioning and positively retaining said reagent pack with said gripper mechanism by utilizing holes with tapered conical opening on said reagent pack and complementary conical pins on said gripping jaws, such that said reagent packs are slightly lift up when being moved in and out of their respective said storage compartments to avoid direct contact therebetween;

i. maintaining precise pipetting position of said reagent pack by utilizing spring-loaded v-shaped members located in said pipetting compartments for limiting the movement of said reagent pack during pipetting.

19. The method as defined in claim 18, further comprising the step of moving said gantry along a horizontal direction until said gripper mechanism is aligned with a column of said storage compartments containing a desired one of said reagent packs.

20. The method as defined in claim 18, further comprising the step of moving said gripper mechanism along a vertical direction until said gripping jaws are positioned adjacent to one of said storage compartments containing a desired one of said reagent packs.

21. The method as defined in claim 18, further comprising the step of engaging said gripping jaws to a desired one of said reagent packs from a slightly higher elevation such that said reagent packs are slightly lift up when being engaged.